



# CAIT

Center for Advanced Infrastructure & Transportation  
Rutgers, The State University of New Jersey

## QUARTERLY PROGRESS REPORT

Project Title:	Development of Airport Obstruction Identification System		
RFP NUMBER:		NJDOT RESEARCH PROJECT MANAGER: Ed Kondrath	
TASK ORDER NUMBER/Study Number: 115 / 4-26857		PRINCIPAL INVESTIGATOR: Patrick Szary	
Study Start Date: 01/1/2002 Study End Date: 12/31/2004		Period Covered: 4 <sup>th</sup> Quarter 2003	

Task	% of Total	% of Task this quarter	% of Task to date	% of Total Complete
1. Literature Search	10%	0%	100%	10%
2. Develop criteria	5%	0%	100%	5%
3. Evaluate the cost effectiveness	8%	0%	100%	8%
4. Conduct laboratory experiments	5%	0%	80%	4%
5. Conduct laboratory/field experiments	15%	5%	85%	12.75%
6. Develop prototype software	25%	5%	75%	18.75%
7. Demonstrate field test system	5%	5%	25%	1.25%
8. Redesign a new prototype	5%	0%	60%	3%
9. Demonstrate prototype system	5%	5%	5%	.25%
10. Train NJDOT personnel	7%	14%	50%	3.5%
11. Final Report	10%	0%	1%	1%
TOTAL	100%			67.5%

1. Progress this quarter by task:

- A. The most significant progress this task was the training phase for the DOT personnel. To date, nine training sessions have been held on the campus of Rutgers University with two training personnel. The training consists of both hands on, in the field flying of the training helicopters along with some classroom and simulator time during each session.
- B. The final helicopter from Bergen RC was completed and delivery was taken. During the training the instructors have flown and the DOT personnel have each had a few minutes of flight time on the Industrial Twin.

2. Proposed activities for next quarter by task:

- A. Continuing helicopter training sessions until all trainees become proficient in flying the helicopters.
- B. Designing and installing a front mount system for the Industrial Twin for the Camera, GPS, and other components.

3. List of deliverables provided in this quarter by task (product date)

- A. List of requirements for a custom made RC helicopter.

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4. Progress on Implementation and Training Activities

A. Training activities have begun and are progressing nicely. Trainees have all been able to get flight time with both the simulator and actual helicopters.

5. Problems/Proposed Solutions

A. Ability of the NJDOT personnel to learn to fly an RC helicopter because it is considered a difficult task. Thus it is critical to begin training as soon as the GPS selection is made to allow enough training time prior to the development and delivery of the final system.

6. Budget Summary\*

Total Project Budget(# of years)	2 Years	\$210,000.00
Total Project Expenditure to date		\$123,768
% of Total Project Budget Expended		59%
Task Order Number/Study Number:		115 / 4-26857
Current Task Order Budget (# of years)	Year 1 and 2	\$210,000.00
Actual Expenditure to date against current task order		\$123,768
% of current task order budget expended		59%

\* These are approximate expended amounts for the project; these estimates are for reference only and should not be used for official accounting purposes. For a more accurate project accounting please review the quarterly invoice for this project.

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